



Rudolf Virchow, Public Health, and the Built Environment

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This issue of the *Journal of Urban Health* features a number of articles on the relationship between human health and the built environment (e.g., neighborhood conditions, housing, etc.). It also presents articles that underscore the increasing importance that public health departments need to place on social and behavioral science in their program development. Taken together, these articles clearly demonstrate how far urban and public health thinking has moved beyond “mains and drains” and “bugs and drugs.” There has been a growing recognition over the past several decades that “health exists in the context of social, environmental, community, religious, political and other spheres” (Cohen and Perl, this issue).

Of course, this is nothing new. No better example exists than Dr. Rudolf Virchow (1821–1902), the founder of modern pathology and one of the most brilliant medical minds of the 19th century. In 1845, Virchow published a classic treatise on thrombosis and haematosis, describing the earliest reported case of leukemia. Among numerous other accomplishments, he discovered neuroglia, gliomas, giant cells, and the amino acids leucine and tyrosine.

In 1848, the Prussian government sent Virchow to investigate an outbreak of typhus among weavers in Upper Silesia (now part of Poland). Rather than developing a set of proposals based on his belief in cellular dysfunction, Virchow startled the government in Berlin with the following recommendations to prevent future epidemics^{1,2}:

- Political reform and local democratic self-government
- “Education, with its daughters, liberty and prosperity”
- Tax, economic, and agricultural reform
- Road construction
- Acceptance of Polish as an official language in Silesia
- Separation of church and state

The Berlin government was not amused. Virchow was subsequently suspended from his position at Charit Hospital. Had the government not been distracted by the 1848 Berlin revolution, it is entirely possible the consequences for Virchow might have been worse. Not surprisingly, his report was ignored.

It has been noted that the full appreciation of the broad social, environmental, and political determinants of health is not only profound in its insight, but paralytic in its effect. Even modern governments more welcoming of this approach than the 1848 Prussian government have shown little more appetite for acting on it.

Even worse, some governments have used the social determinants model as a guise for funding cuts. After all, so the governing logic goes, if social and environmental factors are as or more important in determining well-being than health care systems, then funding ought to be transferred from the latter to the former. Naturally, the funding cuts to health care are imposed, but somehow the transfer check for social and environmental improvements never seems to arrive in the mail.

In 1990, some 140 years after Virchow's report, Professor Irena Norska-Borowka of the Silesian Medical Academy wrote another account of health in Upper Silesia. In it, quoting Virchow, she attributed "increasingly high rates of infant mortality and child morbidity to . . . socioeconomic factors such as poverty, smoking, alcohol, and drug abuse, and . . . stressful urban conditions."³ Plus ça change. Little wonder that Leon Eisenberg plaintively asked in the title of his article, "Rudolf Ludwig Karl Virchow, Where Are You Now That We Need You?"²

Should medicine ever fulfill its great ends, it must enter into the larger political and social life of our time; it must indicate the barriers which obstruct the normal completion of the life-cycle and remove them. Should this ever come to pass, Medicine, what ever it may then be, will become the common good of all. It will cease to be medicine and will be absorbed into that general body of knowledge which is identifiable with power.⁴

REFERENCES

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3. Chopin K. Pollution most foul. *Br Med J*. 1992;304:1495–1497.
4. Virchow RLK. *Die Einheitsbestrebungen in der wissenschaftlichen Medizin*. Berlin: n.p.; 1849.